

THESIS

A HISTORY OF THE SANDALWOOD INDUSTRY OF
WESTERN AUSTRALIA .

BY

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FOREWORD

To a certain extent the history of sandalwood is the history of Western Australia, particularly in the early years of the Colony, for in tracing the development of this industry, one also discovers the disappointments, the periods of prosperity and development, and the spread of population of this State.

The sandalwood tree is a most insignificant bush, unlike the giant jarrah and karri of the South West, but it unfolds a story as fascinating as any history of forestry ever before told.

In writing this article I would like to express my thanks to Mr.R.E.Parry, Mr.Taylor, Secretary of the Australian Sandalwood Company, Mr.Budd of the Forestry Department, and Miss Roberts of the Forestry Department Library for the excellent assistance they gave me in collecting the necessary material.

A HISTORY OF THE SANDALWOOD INDUSTRY OF WESTERN AUSTRALIA.

The sandalwood tree grows mainly in two countries of the World - India and Australia. It grows also in Hawaii, Fiji and other Pacific Islands, but not to the same extent as it does in the former two countries. This fact alone makes it a rather distinctive tree. In India it is grown in the southern regions, commonmost in the Native State of Mysore. In Australia it is confined mainly to Western Australia, but a little is found in South Australia and Queensland. One species, *Santalum spicatum* occurs practically throughout the State of W.A. with the exception of the Kimberleys and the extreme South-West. The main areas are the Eastern Goldfields, and north of the Murchison River towards Carnarvon. The other species *Santalum lanceolatum* occurs mainly in the extreme north of the State but odd species grow as far south as Leonora. Remaining supplies of northern Sandalwood are practically restricted to the mountainous country north of Derby.

Alexander Howard in his descriptive book, "Timbers of the World" on page 525 gives this excellent description of the sandalwood tree :-

"This tree is small in comparison with other commercial timbers. It grows from 12 to 18 feet in height, and at the thickest part of the trunk measures 10 to 15 inches in circumference. When cut ready for export, the sandalwood log measures 12 foot in length, and weighs about a third of a ton."

It would seem from that description, that almost all of the trunk is of use, and that the trunk does not taper off very much near the top of the tree.

Howards description continues :-

"The wood is of a dull yellow, which exposed to light and air, darkens almost to brown. It has a very close firm texture, and a sticky feeling to touch. The fragrant, aromatic and persistent scent is well known, being familiar in the ornamental woodwork, which has, for a long time been imported from India."

In pointing out the main uses of the wood, Howard states :-

"The value of the wood lies in the scented oil contained in the heartwood. There is a considerable industry in the distillation of sandalwood oil from raspings of the heartwood. It is also a beautiful wood for ornamental turnery. In the Far Eastern countries of China, Singapore and Japan, the wood is exported and used in the carving of images and ornamental work. In China, sandalwood is used in the making of "Joss sticks" for burning in religious ceremonies." An interesting account of the making of "Joss sticks" appears in the Forests, and Forest Products and Industries of W.A. 1921.

The sandalwood tree grows as a parasite on the roots of other plants. In D.E.Hutchin's "Discussion on Australian Forestry 1916" it is stated :-

"Recent investigations have shown that sandalwood is not at all particular as to its host plant,

and although the rather rough bark of the eucalypt roots seem to protect the main forest trees from attack, as many as 80 different species of widely separated genera, constituting the typical undergrowth of the low rainfall temperate forests and woodlands of the southern interior, have been shown to be satisfactory hosts."

So much for the tree itself. In looking back over the history of the sandalwood industry, no evidence is given as to how the tree came to Western Australia, or whether it was a native tree. As the first settlement was made in 1829, and this story starts in 1845, it is reasonable to assume that it is a native tree of Western Australia. In 1845, the industry, which has continued right through on a small scale to the present day, started.

From the time the colony of Western Australia started in 1829 to the 1840's, progress was slow. In fact eleven years after the first settlers arrived, the population was still a mere handful, 2311. Most of these colonists were scattered from Perth to Albany. The majority were farmers or would-be farmers, who had settled the Peel Estate and had then spread to the South West, into areas centred around York, Narrogin and to the coastal areas as far as Bunbury and Busselton. Their difficulties and disappointments were many. The lack of labour, until convictism was introduced, was the greatest setback in the expansion. Roads were few and far between, and in most cases farmers were isolated, far from Perth, without any other means of communication except horseback.

Early in the colony's history, sandalwood was used for building purposes, or for firewood. In clearing, a lot of the wood was cut and destroyed, and it was not until the early part of 1843, that the colonists realised that in sandalwood they had a valuable timber. A report reached Western Australia, from a ship which had arrived from India, that a tree similar to that of the sandalwood growing in the area east of the Darling Ranges, was cut and exported to China and Singapore for ornamental and religious purposes. The settlers received notification of the report, along with the order that from then on, sandalwood, when cut, should be stacked and not put to other uses. In a colony which was struggling to exist, any financial or other help meant a great deal to every farmer-pioneer.

It would seem, that judging by notes in the official Colonial Secretary's Reports No.313 Supplement of 1848 negotiations were made with the Chinese authorities as to the likelihood of exporting the timber to China. The results of the negotiations do not appear in the Reports, but it would again seem likely that some arrangement must have been made, for on page 177 of Sir Hal Colebatch's "Story of a Hundred Years" the following statement appears :-

"Sandalwood helped in pioneering in the southern interior. The first export shipment from Western Australia was sent to China in 1845. The first wood was cut from the eastern side of the Darling Ranges." It was only an experimental shipment of 4 tons and realised £40. ^{1.}

1. Battye - History of W.A. - Page 179.

This was a good start for the Colony, and the Chinese must have thought highly of it, to pay the then large sum of £10 per ton. The Governor quickly realised the valuable contribution sandalwood would be in pulling the Colony out of the depression period they were experiencing.

Governor Clarke arrived in W.A. in 1846. Soon after his arrival, the Western Australian Bank offered liberal assistance to those who were cutting timber. It agreed to advance £2 for every load of timber stacked on the beach near the port of Fremantle, and a further 10/- when the load was shipped. During that year of 1846, trade with Mauritius was encouraged and foundations were laid for export of sandalwood to Ceylon. At the end of 1846, it was estimated that 200 tons of the wood were ready for dispatch. The total value of timber, including sandalwood, during the twelve months was £575. ²

The upkeep and building of roads was high - the Governor saw a means of raising taxation, by putting an export tax on sandalwood. From the Session of 1847 held early in the year, the Governor decreed that an export tax of £1 per ton was to be placed on all sandalwood leaving the Colony. The proceeds were to go towards the upkeep and construction of roads. This was a harsh tax to place on a then struggling Colony, and soon after it aroused strong opposition. Strong letters were published in the Inquirer, criticising the Governor's action, and demanding that the tax be dropped.

As a result of this public outcry, the Governor dropped the tax, in favour of a system of license fees for permission to cut sandalwood.

The following Original Declaration appeared in the Government Gazette dated October 1st, 1847 :-

"Issuing of a special timber license for sandalwood. Colonial Secretary, G.F. Moore, hereby states that the regulations to be adopted are as follows -

- (1) No sandalwood cut under a General License after 1st October.
- (2) District of intent to cut must be stated on the application.
- (3) License to cover cutting and removal.
- (4) License for no shorter period than 3 months and renewed month to month on application 10 days after expiration.
- (5) Price £2.10.0 for 2 men, and £1.5.0 for every additional man.
- (6) All cutting to be done by License."

A week later in the Government Gazette, the form of License to cut sandalwood from unoccupied Crown Land was published.

The Government Gazette on 22nd October 1847 published the heading of a Bill which had been passed by the Governor, for the provision of a Fund for the construction of lines of communication, by a Toll upon sandalwood. The Bill stated that a Toll of 10/- was to be charged on all sandalwood prepared for shipment. A penalty of £50 was also imposed for failure to meet the Toll, such penalty to provide for the roads

The first licenses issued from the 10th to 15th October 1847 were issued to farmers and wood cutters from Toodyay and York. Five people applied for licenses during that period, only one of whom was a woodcutter by trade. Names such as Barker, Taylor and Harris, well known in Western Australian history, were among the first to seek licenses.

It was also at this time that the General Roads Trust was abolished, and was substituted by a Central Board of Works. W.Knight was elected Chairman of this Board, and one of his first acts was to insist that returns of wood exported, giving details of tonage and name of the ship, should be forwarded to the Collector of Revenue. Furthermore, he stated that no sandalwood would be allowed on board a ship without a permit.³ Thus, he was able to keep a proper control over the industry, which was proving to be even more successful than the export of wool and oil.

It was not long after the Declaration of the Licenses Bill that Governor Clarke reintroduced his taxation on sandalwood, and had it passed into law. Farmers, who had progressed under the License scheme, found that having to pay a high taxation left them with very little profit. They soon began appealing to the Governor to lift the taxation. The Inquirer became the mouthpiece, and in the Editorial the Governor was severely criticised. They pointed out that if the tax was not lifted many people would leave the Colony. Under

3 - Government Gazette - November 17, 1847. Page 29.

public pressure the Governor was forced to call together a Committee to discuss the problem.

The Committee duly met in May 1848. At this meeting the attendance included the Governor, Chief Secretary, Chairman of Central Board of Works, and representatives of the farmers and cutters. Matters discussed were taxation and the progress of the industry. It was pointed out that there had been a slight depreciation in the sale of sandalwood. Reason for this was attributed to the competition from India and Fiji, Hebrides and Caledonia, who were experimenting with the wood. It was decided to export a finer type of log, and to increase production. It was also stated that bartering must cease between W.A. and China. Tea had been exchanged for sandalwood and proved most unsatisfactory - tea sold less than was paid for it.

On the subject of the taxation, the Governor was reminded of the peoples threat to leave the Colony. Mr. Thenton also reminded him that as the trade had practically saved the Colony from ruin, it would be ridiculous to offset it by aggravating the people. Figures presented regarding the sale of the wood were -

- (a) For every ton of wood cut the Government received $3/4d$ in the £1.
- (b) Expenses on each ton amounted on an average £8.15.0 (China).
- (c) Freight to China was £4.2.6 and Singapore £2.5.0.

(d) Charges for sale per ton - China £5.0.0
Singapore £2.10.0.

(e) Price in China £18 ton - Singapore £13 ton.

From these figures it was shown that as expenses were £8.15.0, an added tax on top of this would leave a very small profit. Confronted by this opposition Governor Clarke dropped the taxation, but retained the License fee and the Toll of 10/-.⁴

Evidences of returning prosperity were to be found in the exports for the year 1848, which amounted in value to £29,598. Of this total sandalwood, which three years previously had not been considered as an asset of any value, accounted for £13,353, more than the export value of wool and oil together.⁵

An interesting report on Stocks and Crops No.163 appeared in the Government Gazette dated 9th December 1848, revealing the worth of the sandalwood industry and how it had helped pull the Colony through it's worst period :-

" Should our sandalwood be made a medium of exchange, the advantage derivable therefrom will be transferred from our internal to external producers of grain. Instead of the Colony benefitting by its export, the value and profit therefrom will go to strangers, in payment for that which the Colony has or should have the means of producing itself.

4 - Colonial Secretary's Report - 313 Supp.1848.

5 - Battye - History of W.A. - Page 191.

The exchange of sandalwood for agricultural produce does not meet the annual cost of the import, and large payments being made in specie, the circulation of the Colony is affected. The returns upon sandalwood, would, instead of enriching strangers, then go into the pockets of the settlers. The population has grown to 4,622.

Export of sandalwood - 1847 - 337 tons.
 " " " " - 1848 - 1319 tons."

Whilst the Colony was growing in population, it was also being built up. At the end of 1847 a track known as Sandalwood Road was opened from Bunbury in the direction of Williams.⁶ Bunbury at that time had sufficient harbour facilities to take care of any loads of wood from the Williams area. Roads were also built from Toodyay and York leading through Guildford, which had become a chief town and junction on the way to Fremantle. A large saw mill and receiving depot was set up at Guildford, and there the farmers and cutters could obtain a change of horses for the final stretch to Fremantle.

Two years after the Committee had met to discuss the abolition of taxation on sandalwood, another controversy arose in another part of the Colony - Sharks Bay.

A Captain Scott had navigated the waters around Sharks Bay, and was surprised to discover sandalwood growing along the beach in considerable quantity. On his return to Perth he engaged a number of men, bought horses and equipment.

He fitted out the ship "Prince Charlie", and sent his party to Sharks Bay to cut 100 tons of the timber. Upon applying for a license to cut the wood, he received quite a shock. He was told that a tax was to be imposed upon each ton of sandalwood he cut for export. This tax was to pay for the roads in the district. The fact that there were no roads, and very few people in the area, didn't seem to worry the officials in Perth. Captain Scott pointed out that as the trees were growing along the beach, the wood was to be carried to the boat by shoulder. Regardless of his arguments the tax remained. If he were to receive less than £7 a ton he should pay £1 on each ton - if the amount was over £7, he was ordered to pay 30/-.

The majority of the people in the Colony felt very strongly against the tax that had been imposed. As they pointed out, the Government was taxing the untried. Instead of enforcing a tax, they should have offered a bonus to help him in his work.

They also remembered the previous argument on the same subject. Governor Clarke had returned to England in the early part of 1849, and he was replaced by Governor Fitzgerald. With the arrival of a new Governor it was thought throughout the Colony that the old tax might be introduced again. However at the first Council meeting in April of 1849, His Excellency declared :-

"You may rely on it gentlemen, unless trade is of a very very profitable nature, I shall not trouble you with

a tax on sandalwood."

To the Colonists it appeared as if Governor Fitzgerald was going back on his word. It was obvious that the wood was not of sufficient value to compete with other countries. It was also feared that it would take time to gain the confidence of the purchaser. The Governor however stood firm, regardless of the attacks upon the Government, and the tax remained. Thus the Governor made himself most unpopular for a time.

It would seem from the account that Captain Scott had been lucky to secure the sandalwood, as a rival country had sent a ship, the "Laurel", to survey the area. Had he not acted, the "Laurel" would have taken the trees from under the Government's noses. Captain Scott engaged the "M.P. Cassilly" to proceed to Sharks Bay on return from Singapore. Even with the imposed tax he did very well out of the area, and he made a tidy sum of money while the timber lasted. ⁷

So the Colony grew! Between 1849 and 1868 the population increased from 5,000 to 23,000. The exports for the same period rose from £25,000 to over £192,000. As the Colony grew, so also did the sandalwood industry. After the initial starting off of the industry, and its gradual development to 1850, not much is heard of it, except an occasional report in the local newspaper.

7 - Account of Captain Scott taken from Perth Gazette 15/11/1850
Page 3 and Inquirer 27/11/1850 - Page 2.

Experimentation, for medicinal purposes, had been undergone, and in 1851 it was discovered that the wood had other uses, other than that of making Chinese "Joss sticks" the roots contained oil, which could be used for the health, as well as for the wealth. Whether the extraction of oil was carried out to any extent at that stage of the industry is not known. ⁸

Singapore by this time had become an important exporter from W.A. of sandalwood. One boat from Singapore, the "Guyon", had to wait two months for a cargo, showing that they obviously valued the Western Australian product. The price rose in 1859 to £20 per ton. As in the past, criticism was levelled at the industry, when it was pointed out that sugar had become very expensive, and that trade with Mauritius would be more beneficial. ⁹

In 1862, two letters appeared in the Inquirer. The first was from a cutter in the South West, who in expressing his thanks to the Government on the manner in which they were handling proceedings, stated that the wood was fetching as much as £25 to £30 per ton. ¹⁰ The other letter was from a correspondent in China, who wrote to the Paper explaining how the export trade from W.A. had spread in that country. The letter went on to say that the cities of Hankow, Tientsin, Shanghai, Hongkong and Canton were the chief centres.

8 - Public Gazette - 14/2/1851 - P.2.

9 - Inquirer - 30/11/1859 - P.2

10 - Inquirer - 15/10/1862 - P.2

11 - Inquirer - 18/6/1862

Constantly appearing in the newspapers of that year of 1862, were arguments for and against the continuation of the industry. One person wrote that in his opinion sandalwood was leading the country to ruin - that farmers devoted more time to cutting timber, than to their crops.¹² Another correspondent, on the other hand, pointed out that previously when there had been a cessation of the industry, it had cost the country £16,000, and this would again lead to depression.¹³ So the battle of correspondence raged. One rather wise suggestion at the time was to the effect, that with the influx of 60,000 Chinese into New South Wales and Victoria, a ready market could be found in those States.

From 1862 to 1868, the boom year of the industry, the market had its ups and downs. Large quantities and good prices was the rule one year, but the next would find prices down again. From 1866 to 1868 was the gradual climb to the best year since it's inception. Great quantities passed through Guildford, and in 1868, in a period of eight months, 3,000 tons were shipped away.¹⁴ Battye states for example - "The trade in sandalwood was lucrative, maintaining throughout these years an average export value of over £20,000 annually, and rising in 1868 to £26,045."¹⁵

12 - Inquirer - 9/9/1862 - P.2

13 - " " - 2/4/1862 - "

14 - Perth Gazette - 4/9/1868 - P.2

15 - Battye - History of W.A. - P.273.

The trade varied with the local demand for general labour, and also with the prices at Singapore and other ports to which it was sent. During the period 1869 to 1874 the industry reached it's highest peak. The total value exported in those six years was £273,838, of which £70,572 was dispatched in the latter year. ^{16.}

Some interesting features also arose in these years. A large quantity of wood was found growing 70 miles from King George Sound. ¹⁷ (No mention, however, is made of it's possibilities). The first roots of sandalwood were exported to China, ¹⁸ and agriculturalists, like Robert King, were commenting on the injury done to the trade by ignorance of the correct treatment of the tree. ¹⁹

Conditions gradually changed! After the boom period up to 1874, the trade fell away. The market lasted for another nine years, but it began to decline rapidly after 1883, it's place being more than taken by the increasing demand for hardwood timbers. ²⁰ A letter written in 1876 indicates the true situation. The comment made was that as before, 60 or 70 teams came to Perth weekly, the numbers had rapidly declined. ²¹ Furthermore, the area from which the timber had been cut was extended to the eastern wheatbelt.

- 16 - Battye - History of W.A. P.298
- 17 - Inquirer - 31/3/1870 - P.3
- 18 - Perth Gazette - 12/8/1870 - P.2
- 19 - Inquirer - 8/3/1871 - P.3
- 20 - Battye - History of W.A. - P.326
- 21 - Herald - 23/12/1876 - P.3

In those areas wells were sunk for the benefit of men cutting timber east of Northam.²² In the same year an Act was passed prohibiting the destruction or export of miniature sandalwood.²³ This was a lead to the industry which was later to be started in this State, the purpose being the extraction of oil from the roots and sawdust

Up to this stage in the history of this fascinating industry, all exporting had been carried out by private parties cutting the timber under the guidance of the Government. Some small Companies of several cutters had been formed, but most was still cut by the farmers in the areas east of Perth. As the north opened up, small quantities of sandalwood were brought down from that area to Fremantle. However, the timber in the north was not of important value until after the turn of the Century. In the meantime, it began to dawn on the Government that sandalwood was not just a sideline for helping farmers establish their farms and properties - they saw in the industry a hope for the future of the State.

Turning their eyes to India, and to the prosperous State of Mysore, they observed that the only way to foster the industry was to have more control over the conservation of the trees. In India, so much was thought of the hardy little tree, that the Government of that country

22 - Colonial Secretary's Report File 1459/148;152 & 156 - 1882
 23 - " " " " 1406/41; 42 & 45 - 1882.

passed Acts making it an offence to injure one of them. Trees were likely to grow anywhere, provided they were near a host plant, and residents would wake up one morning to find they had a miniature sandalwood forest in their front garden. As soon as one tree was cut down, another was planted. Thus, they maintained the ever ready supply. India became the model for Western Australia. ²⁴

Many authorities in W.A. advised the Government to declare sandalwood as being a monopoly, and to make export illegal. The Government did not accept this advice, but instead appealed to the farmers to preserve some of the trees, by keeping their land clear of fire and pests. Furthermore, they set aside large areas of sandalwood as Reserves, from which trees could be cut only on application. Plans were also under way for reforestation.

In the late 1880's, Mr.E.J.Parry, a chemist who had been experimenting in the making of oil from the roots and butt of the sandalwood tree, set up a distillery at Torbay near Mt.Barker. ²⁵ The sawdust used in the distilling was found to be rich in oil. The industry however did not pay, and it was closed down after 3 years. Nevertheless, in that 3 years there was a good overall production of oil. It was suggested at the time, that if only the sandalwood could be conserved, the oil distillery and sale of a standard pure oil

24 - Hutchins - Discussion on Aust.Forestry 1916 - P.242

25 - Information obtained from a telephone conversation with R.E.Parry, relative of E.J.Parry.

might become a lucrative undertaking.²⁶ Before the distillery at Torbay had collapsed, a Mr. Knoop set up a similar distillery at South Fremantle.²⁷ It is not known how long the distillery lasted.

In 1895 the Government began experimenting again in reforestation of sandalwood. They had tried small experiments earlier, but they had proved failures. As reforestation was then only in it's infancy, they had not realised that they had many botanical problems to first overcome. The reason for the failure was traced to the destruction of host plants in clearing the land prior to planting. Furthermore, in most cases the seedlings had been planted too far from the host plant. After D.A. Herbert had published his book "Root Parasitism", it was easily seen where and why earlier attempts had failed. Armed with knowledge and plenty of determination further attempts were made.²⁸ Two sites were chosen - Pingelly and Meckering.

At Pingelly, the authorities in charge of the experiments planted only 20 acres. The planting, however, was done too late in the year, and results were not satisfactory. After re-planting at the correct time, they had good results. Four years later in 1899, several hundred more acres were planted, most of which sowing proved successful.

26 - Hutchins - Discussion on Aust. Forestry 1916 - P.242-3.

27 - Telephone conversation with R.E. Parry.

28 - Hutchins - Discuss. on Aust. Forestry 1916 - P.244.

The experiment failed later due to trouble with rabbits and fire. 29

The plantation at Meckering was more successful. A large area of land needed protection, so 292 acres were declared a reserve. For a small expenditure the result was good. Where they had failed at Pingelly, they succeeded in keeping out the pests. In 1900, 13,350 seedlings and sand nuts were sown, and the new seedlings showed phenomenal growth. The Plantation was to later become a source of supply. 30

As before areas were being cut out too quickly. The price in China and Singapore had dropped, owing to a glut on the market. Piles of the wood were stacked at Fremantle ready for shipment, but in many cases the loads remained rotting near the wharves. The Government stepped in to relieve the situation. They made the regulation circumference measurement of all trees for export 15 inches. They brought in a system of Licenses, which had to be held by the engager and the cutter before cutting could begin. The fee for such License was 5/- per month for each man employed. In 1896 the amount exported was £65,800.

The most important step taken by the Government was the establishment of a Forests Department, whose job it was to control all matters centred around the

29 - Annual Progress Report of Woods & Forests Dept. 1897
30 - " " " " " " " "

export and import of timber, and the care of the forests. One of the first things done by that Department was to close large areas against all cutting. Most of the areas around Toodyay and York had been cut out, and the main source was then the wheatbelt and eastern goldfields. As the wheat growing areas were opened up, the farmers were in a happy position to be able to fall back on sandalwood as a means of income. One authority wrote regarding the reservation of valuable timber :-

"It is apparant that some people look on the forestry experiments with amusement, but if they would give the matter consideration and consider the immense source of wealth the sandalwood industry has been to the State in the past, I feel sure they would admit that any experiment would serve as a stimulus to them to plant their waste land with this valuable tree, is worthy of attention and interest of the community at large." 31

After the Kalgoorlie railway line was opened in the 1890's, the sandalwood was brought to Fremantle by rail. Prospectors in the outback areas in the mulga country obtained relief by cutting the wood. Small lines, like tram lines, were built up to 80 miles from the main railway, and the wood was cut and brought to the sidings in small carts.

About 1913, a Mr. Braddock opened up a factory at Belmont, for the distillation of sandal oil. It had been

31 - Annual Progress Report of Woods & Forest Dept - 1900.

discovered by scientists and chemists that sandalwood oil could be used for medicinal purposes. The Indians for example had been using the oil as an antiseptic, and the South East Asian women made a paste from the oil and used it on their faces to improve their complexion. The British Medical Association had discovered that when used in the capsule form, the oil helped in the cure of venereal diseases, such as Gonorrhoea and Syphilis. It was not long before Braddock, who produced under the name of the Braddock Essential Oil Company, was exporting some of this oil to England. His first factory was actually in Perth, where he could employ gas in the distilling, but he later changed back to Belmont when he discovered that wood gas was just as effective. In 1917, after a slow beginning, Braddock was producing up to 3,000 lbs of oil a year for export and local use. The oil had been recognised and accepted by the British Pharmacopoeia.

Plantations were then also under way to meet the demand for wood. One amusing story is told of a plantation being opened, the authorities having high hopes of its productivity. The Department fenced it off, but an Ahab (a local resident) who, seeing what he thought would be good grazing land, applied to the Government for the lease. He was granted the land, and although the Forestry Department put up a fight, the Ahab won the argument and the land. ³³

33 - Australian Forestry Journal 15/1/1923.

As most of the wood then cut came from the mulga regions and eastern Goldfields, it was only natural to establish plantations in those areas. One was started at Meckering in 1916, and another at Bendering in 1918.

Interesting details from these experiments were :-

- (a) old jam trees served as the best hosts
- (b) trees on Goldfields take up to 50 years to mature, and at Bendering an expected 30 years.

It was also discovered that in the Kalgoorlie district, regeneration was frequent and 205,000 acres were gazetted as Reserves.

Production and prices during the War years 1914-18 increased in leaps and bounds. With the added need for sandal oil for the treatment of venereal diseases, the export prices rose. India even went as far as declaring the making of the oil a Government monopoly.³⁴ In 1917 the price rose to £15.10.0 a ton.³⁵ In 1920, for example, the export value was £240,579, of which £3,704 was of oil produced in this State. The Government royalty was increased from 5/- to £2 a ton.³⁶

About 1922, Plaimar Limited bought the distillery from Braddock, and were then the sole producers of oil in Western Australia. (Their present factory is in Havelock Street, Perth).³⁷

34 - Aust.Forest Journal 1918 July - P.9

35 - Annual Progress Rep.Woods & Forests Dept. 1917

36 - Aust.Forestry Reports - 1920

37 - Aust.Forestry Report 1924.

1924 proved to be a great year for the industry, with receipts for exports totalling £348,713. ³⁸

Later on in the decade, further plantations were established in the drier areas of the eastern Goldfields. It was found that the recipe for success was a good early rain, which fell only 1 year in 4. In a report to the Department, one of the Officers working on the plantation stated :-

"Natural regeneration gives 1 cwt. of timber per acre in forty years, whereas from artificial sowing, 20 cwt. could be produced in the same period." ³⁹

An important event took place in 1929. Under the new Act, all the registered Sandalwood Companies, numbering four, amalgamated to form the Australian Sandalwood Company. This Company controlled and still controls the entire export of sandalwood from this State. ⁴⁰

1930 saw a fall in the export price to £22,228. ⁴¹ From then until 1943 the price rose and fell but the importance had gone out of the industry. New drugs and medicines were taking the place of sandal oil - the introduction of penicillin, being a most important discovery. Also the depression years 1929 to 1933 played their part. In 1938 there were 25,327 lbs of oil exported, but five years later only half that amount was exported. ^{42.}

³⁸ - Aust. Forestry Report 1924

³⁹ - Aust. Forestry Journal 15/12/1927 P.322

⁴⁰ - Conversation with Mr. Taylor, Sec. Aust. Sandalwood Coy.

⁴¹ - Aust. Forestry Report 1930

⁴² - Annual Progress Report Woods & Forestry Dept. 1938.

£80 was the value of the shipment in 1943, and most of that was oil.⁴³ During the War years 1939-45, hardly any wood was cut, but in 1947 the industry resumed activities. The figures for 1950 are :-

Value of wood exported - £100,616.

Amount of oil " " - 7,273 lbs.⁴⁴

These figures have remained fairly constant up to the present time.

Today the face of the industry has changed a lot to what it was in 1845. As much as £26 a ton is obtained from importing countries. China is no longer the chief buyer, owing to it's having a Communist regime. Singapore, Java, all the East Indian Islands and Pacific Islands where it is not grown, along with Formosa, are the eastern buyers. America, Britain and France are the chief Western countries on the importing list. In Eastern countries, they still buy the wood for ornamental uses, and often extract their own oil for medicinal purposes. The Western buyers use the oil, which they purchase or extract, as a fixative in the making of perfumes and soap, as well as minor medicinal uses.⁴⁵

The sandalwood industry has grown from an experiment in 1845, to the smooth running production we know it today. The tree played an important part in the development of Western Australia, as it always commanded ready money, which tided the farmer over his early difficulties.

43 - Aust. Forestry Report - 1943.

44 - Annual Progress Report 1950.

45 - Conversation with Mr. Taylor, Sec. Aust. Sandalwood Coy.

Such benefits are enjoyed by prospectors and others on the goldfields now. Today most sandalwood is cut in these areas :-

100 miles north east of Wiluna
 " " " " " Laverton
 Paynes Find and on both sides of the
 Norseman and Trans Line.

The industry has gone hand in hand with the growth of the State, and as many historians point out - "Had it not been for sandalwood, W.A. might not have been the State it is today - land of sunshine and opportunity.

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SUMMARY - FROM NOTES MADE BY MR. D.W.R. STEWART.

NOTES FROM A HISTORY OF THE SANDALWOOD INDUSTRY OF WESTERN AUSTRALIA BY JOHN UNDERWOOD IN 1954. A THESIS FOR THE LEE STEERE AWARD, CLAREMONT TEACHERS TRAINING COLLEGE

Foreword: A history of the early days of Western Australia.

Thanks are recorded to R.E. Parry, to Mr. Taylor (a former Secretary of the Australian Sandalwood Co.), to Mr. Budd of the Forests Department and Miss Roberts (Forests Department Librarian) in furnishing material for the above thesis.

Page 1 - Distribution of Sandalwood

India and Australia with a little in Hawaii and Fiji.

South Australia and Queensland in addition to Western Australia except in the Kimberleys and the extreme South West.

Santalum lanceolatum occurs in the Kimberleys ^{mainly} only.

For descriptions see Alexander Howard "Timber of the World" page 525.

Logs are said to be 12' to 18' by 10" to 15" circumference. That is a log 12 feet long would be 6 to 7 cwt.

Note: It is felt that 10 to 15" circumference should read 10 to 15" diameter.

^{The wood} It is dull yellow in colour, darkening to brown.

Page 2 - Main Uses

Its value lies in the scented oil in the heartwood ^{strongly aromatic} and is used for oriental carvings, ornaments, joss sticks and oil distillation.

Page 3

It is a parasite occurring on a wide range of hosts. A native tree to Western Australia. In early land settlement it was destroyed in clearing for agriculture. In

1840 the State population was only 2,311 and the land was being settled between Perth and Albany. Up till 1843, it was destroyed in clearing.

Page 4

Settlers notified of similar tree sent from India to China & Singapore

From 1845 it was separately cut and stacked. A Colonial Secretary Report No. 313 issued as a supplement in 1848 mentions negotiations with Chinese buyers.

Hal Colebatch on page 177 of his "Story of 100 Years", states that Sandalwood helped in pioneering the southern interior. The first shipment to China in 1845, cut east of the Darling Range, 4 tons brought £40. (See also Battye page 179) (£10 a ton was then a high price).

Page 5

Refers to a depression at this time. Governor Clarke in 1846 when the West Australian Bank offered assistance to cutters by way of an advance of £2 per load stacked on the beach at Fremantle plus 10/- when shipped.

Trade was also done with Mauritius and Ceylon in 1846. 200 tons were ready for despatch. The total value of the timber and sandalwood exported in that year was £575 - see Battye page 184.

In 1847 a tax of £1 per ton was levied for road maintenance but owing to strong opposition this was dropped.

Page 6

The next step was licensing. Under Colonial Secretary C.E. Moore licenses were issued for three months and renewed monthly thereafter. The price was £2/10/- for two men plus 25/- for each additional man.

The Government Gazette of 1847 refers to a toll of 10/- per ton on all sandalwood prepared for shipment. A penalty of £50 was proposed for non-payment, the object being to raise revenue for roads.

Page 7

The first licenses on the 10th-15th October, 1847, were issued to farmers and cutters at Toodyay and York. W. Knight, Chairman of the Board of Works, insisted on returns giving tonnage and the name of the ship to the Collector of Revenue. (See Government Gazette, 17th November, 1847, page 29.) It was more successful than the export of wool and oil.

Page 8

The tax was reintroduced under strong farmer protest. A committee was formed and met in May 1848. For each ton cut the Government received 3/4d. in the £1, i.e. one-sixth. Expenses per ton were £8-£15 and freight was £4/2/6d. to China and £2/5/- to Singapore.

Page 9

Charges for sale per ton were £5 to China and £2/5/- to Singapore. The tax was dropped and the license and toll were retained. (See Colonial Service Report 313 supplement 1848).

In 1848 the ^{total} export value was £29,598 of which Sandalwood brought £13,353 - Battye page 191. The returns were greater than those from wool plus oil.

A report on the 9th December, 1848 on stocks and crops tells how sandalwood pulled the Colony through the worst period of its depression. The population had grown to 4,622.

Page 10

Sandalwood export in 1847 was 337 tons and in 1848 1,319 tons. In 1847 a track called the "Sandalwood Road," was cut through from Bunbury to Williams. Also from Toodyay and York, it came in through Guildford. In 1850 Captain Scott found Sandalwood growing along the beach in quantity at Sharks Bay.

Robertson
1335 tons +
a slump to
1200 tons
in the
following
decade.
@ \$10/ton
= 45% of
total export
pp.

Page 11

Scott arranged for men, horses and gear, fitted out a boat called the "Prince Charlie" and a party to cut 100 tons. The tax was still applied to him regardless of the fact that there were no roads at that locality. The tax was quoted at £1 per ton if he received less than £7 per ton and 30/- a ton if he received more than £7 a ton. In 1849 Governor Fitzgerald retained the tax but Scott did quite well while the Sandalwood lasted.

Page 12

1849 to 1868 the population had increased from 5,000 to 23,000. Exports increased from £25,000 to £192,000. The Sandalwood industry had grown rapidly.

Page 13

Singapore was an important exporter of wood^{from WA.} by 1851. Its medicinal use was recognised. The price in 1859 was £20 per ton. In 1862 a cutter states that wood is bringing £25 to £30 per ton. Five Chinese cities were the chief centres in 1862.

Page 14

The industry had its ups and downs. 1868 was a boom year. In 8 months in 1868 3,000 tons were shipped, and Battye describes it as a lucrative trade with an average sea export value of more than £20,000 per year, reaching £26,045 in 1968.

cf 60 000 Chinese in NSW + Vic

Page 15

Trade varied with the local labour demand.

In 1869 to 1874 it reached a peak with £273,833 exported in toto of which £70,572 worth was exported in 1874.

the first route to China
Boom 40 miles from Albany
declined after 1883.

Page 16

The area of cutting extended to the eastern wheatbelt. Wells were sunk east of Northam for sandalwood pullers. The destruction of small trees was forbidden and most production up to this time had been by farmers.

see Hutchins 1916 pp 242-
Rus For.

Page 17

The Govt. appealed to farmers to preserve areas and some trees and sandalwood reserves were proclaimed. In the 1880's E.J. Parry set up a distillery near Torbay producing Sandalwood oil, but it did not pay and was closed after 3 years.

Page 18

A Distillery was established at South Fremantle by Knoop. In 1895 experiments were made by the Government in reforestation of sandalwood, but these failed.

In 1916 further attempts were made at Pingelly and Meckering. This is mentioned by Hutchins in his report about 1916 when he states that in 1900 13,350 nuts were sown at Meckering. It was believed this would be a later source of supply. See also Forests Department report of 1897.

Failed due to rabbits + fire.

Page 19

1896 Sandalwood export was placed under Forests Department control.

Suggestion to plant waste land with this valuable tree.

1868
Robertson
= 16% total
exports in
1860s.
when wool
was most
valuable

Page 20

The Kalgoorlie line opened in 1900 and Sandalwood was railed to Fremantle. (Obviously the Goldfields exploitation of Sandalwood did not really commence until this line was opened. ²⁰⁵) Prospectors were then the main suppliers of wood, some of which was supplied from the light wood lines running out to as much as 80 miles from Kalgoorlie.

Page 21

In 1913 Braddock had a distillation factory at Belmont distilling the oil for medicinal use. It was exported. In 1917 he was producing up to 3,000 lbs of oil per year and it was recognised by the British Pharmacopaea. See Australian Forestry Journal. 15/1/23.

Page 22

Plantings at Meckering in 1916, Bendering 1918 and Jam was recognised as the best host. There was a reference to maturity up to 50 years or at Bendering up to 30 years. In Kalgoorlie regeneration was frequent. 205,000 acres of reserves were proclaimed.

In 1917 the price was quoted at £15/10/- per ton.

In 1920 export values £240,579 of which £3,000 was for oil. Royalty was increased from 5/- to £2.

In 1922 Plaimar bought out Braddock.

Page 23

By 1924 exports had reached the figure of 348,713 tons.

Yields are quoted in the Australian Forestry Journal of 15th December, 1927, page 322.

1929 saw the amalgamation of the various Sandalwood companies to form the Australian Sandalwood Company.

Page 24

In 1950 wood exports totalled £100,616 and oil 7,273 lbs.

Eastern countries use it principally for medicinally purposes ie., the oil and ornaments. In Western Nations it is used for a fixative for perfumes and soaps.

Page 25

By 19⁵⁴ cutting was more remote and wood was coming from 100 miles north-east of Wiluna and 100 miles east of Laverton. Other supplies were coming from Paynes Find and both sides of the Trans-Australian railway line.

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